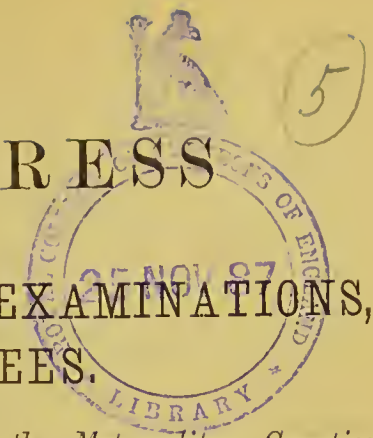
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MEDICAL EDUCATION, E
AND DEG

By JOHN S. BRISTOWE, M

[B.M.J., January 1887.]



AN ADDRESS

ON

MEDICAL EDUCATION, EXAMINATIONS, AND DEGREES.

Delivered at the Annual Meeting of the Metropolitan Counties Branch of the British Medical Association, June 29th, 1886.

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[The opinions expressed in the following Address are opinions which I had formed after much thought, and was anxious to bring under the notice of the profession. But the Address was delivered under circumstances which rendered it impossible that much attention should be paid to it at the time, and it appeared in the *British Medical Journal* at a period of the year (namely in August) when the medical holiday season had commenced, and it was likely to be overlooked. At any rate, it received but little attention, and has substantially been overlooked or ignored. I do not usually care to reproduce speeches or articles which have failed of their effect. But there are two reasons why, on this occasion, I venture to depart from my ordinary custom. The first is that the Royal Colleges of Physicians and Surgeons quite recently have definitely committed themselves to the joint enterprise of establishing a Medical University, and it was in anticipation of this step that I spoke. The second is that one or two leading members of the profession, who are deeply interested in medical education and in the action of the two Colleges in relation thereto, have spontaneously and independently urged me to republish my Address.—J.S.B., *January*, 1887.]

In rising to perform, as best I may, the first if not the most important duty expected of me, as your newly-elected President, I must begin by thanking you, with all my heart, for the high honour you have to-day conferred upon me; an honour which I never sought, which I did not expect, and which is undeserved. I hope, however, in the near future, to make up for some of my past deficiences, to earn a little of that kind confidence which has been accorded me by anticipation; and, if I may not rival my able, indefatigable, and genial predecessor, at least to show my sense of his many great qualities and excellent services by making, during the coming year, his conduct in his high office the pattern for my own.

There is no rule or custom, so far as I know, which limits the choice of subjects for the Presidential address. I wish there were;

for during the last few weeks I have been much perplexed by the difficulty of choosing; and have wasted no little time in the consideration of themes which I sooner or later discarded as unsuitable or inopportune. Had I been guided by personal inclination, I should have determined to devote the hour at my command to some study in clinical medicine. But, interesting as I hope such a lecture might have proved, I could not help acknowledging to myself that it would be better suited for one of the local meetings than for our annual gathering. I sought, therefore, among the questions which, during the last twelve months, have chiefly engaged the attention of the Council for one which I might venture to discuss; and it is needless to say that, look which way I would, one of them, predominant over all rivals, forced itself upon me—the question, namely, of how best to provide for students educated in London reasonable facilities for acquiring degrees in medicine. This has been largely discussed during the last year or two in our Council, at general meetings of the Branch, and in the medical journals; and it is at present under the serious consideration of the Royal Colleges of Physicians and Surgeons, to whose joint action most of us look hopefully for the solution of the difficulty. I, too, have had my say. It might well have been thought, therefore, that everything that could be usefully said upon the matter had already been said; and that, at any rate, it was hardly for me to prolong the discussion. I confess that those were my own feelings; and they so far prevailed with me that I should certainly have dismissed the subject from my thoughts, as I had done others, had I felt that I could only treat it from the point of view in which hitherto it has been chiefly regarded.

But, gentlemen, it is now admitted that English medical men, and the medical schools of London, are at a serious disadvantage in the matter of university degrees, as compared with the profession in Scotland, and the profession in every other European State. There is no need to prove again what has already been only too amply proved. Also, it is now generally allowed by those who are directly interested in the subject, that there is no scheme which promises so easy and so satisfactory a remedy for our greivance as that which aims at giving university powers to the conjoint Colleges. There is no need to consider again the facts and arguments which have compelled this conclusion. I do not propose to re-open these fundamental questions on which we are all practically agreed. But there are questions arising out of these, some of which are already engaging attention, and will soon, we may hope, press for solution; others of which (though perhaps of less immediate interest) ought not to be disregarded; and most of which may, I think, be suitably discussed. The most important of these relates to the conditions on which the degrees of the united Colleges should be given. But involved in this, and leading up to it, are questions having reference to examinations, to medical education, and to the preliminary training of those about to become medical students. I shall make a few observations on each of these topics.

1. *The School-training of boys intended for the medical profession*, and the test-examinations to which they ought to be submitted before they are allowed to enter on their special medical studies, are subjects to which much attention has been given by the medical schools, by the various examining bodies, and by the General Medical Council, and which will probably have to be carefully re-considered by the Colleges of Physicians and Surgeons in relation to their contemplated degrees. For it can hardly be supposed that the minimum preliminary examination now required of candidates for the conjoint licence will be deemed sufficient for those who aim at obtaining the university degrees.

Widely different views are entertained with regard to the education of boys. Many persons still regard the old classical training, as indeed it is still carried out at most of our large public schools, to be the best. Many others think that the study of modern languages provides as good a training as that of the classics, and is of much greater utility. While an increasing number of persons hold that the study of science is at least as valuable for many boys as the study of either ancient or modern languages, and is especially suitable for those whose inclinations lead them to become scientific men or physicians. Much can be said, and said truly, both for and against each of these systems of education. It is certain, that much time is wasted in teaching boys to write so-called "elegant" Latin and Greek verses, who could not for the life of them compose a decent stanza in their mother-tongue, and inculcating upon them the niceties of grammatical construction in classical authors, while they are probably quite incompetent, and are not taught, to write a couple of consecutive sentences in reasonably good English; and that the great majority of boys, whose school-time is thus devoted to the study of the ancient tongues, leave school with very little real knowledge of them, and speedily forget the greater part of what they knew. It is certain, too, that boys educated mainly in the modern languages, especially on the so-called modern side of our great schools, equally fail to acquire any useful amount of that knowledge to which their time is mainly given. And, as regards scientific education, of which mathematics should be regarded as forming a part, although it must be admitted that it involves studies to which some boys are inclined, and in which they would excel, I feel sure that it is not appropriate as the main pursuit of any large number.

I have been much struck, as I suppose most have been struck who have looked into the matter, with the little apparent influence a boy's position in school exercises over his future position in the world; how little one can foretell future success and eminence from success and eminence at school, or forbode future failure and insignificance from failure and insignificance in the class-room. I do not mean that high distinction at school is incompatible with high distinction in life, or even that the average of future success is not greater among boys who do well at school than among those who do badly. But I do mean that a very large number of those

who win distinction at school fail to maintain their pre-eminence afterwards, and that a very large number of those who are nowhere at school achieve greatness.

The explanation of this phenomenon is, no doubt, complex. Some boys mature earlier than others; some are gifted with ready memory, which enables them to accumulate verbal and mechanical knowledge much more easily than their compeers; some, who are endowed with reasoning powers beyond their years, fail to compete successfully with their quicker and shallower companions; but, perhaps more important than all is the fact that the larger number take little or no interest in the subjects upon which scholastic eminence in school-life depends.

But, if most boys carry from school such an imperfect knowledge of the subjects, which it has been the main object of their masters to teach them, that it proves of no further use to them, and even fades from memory altogether, of what advantage, it may well be asked, has their school-education been to them. Well, gentlemen, misdirected though their education has been, and capable of great improvement though it might have been, I am very far from thinking it has been useless. Boys learn at school much more than their teachers expressly teach them; and I make bold to say that this incidental knowledge, if I may so term it, is, as a rule, of much greater value to them than is that success which brings them prizes and exhibitions. They learn something of the world in which they dwell, and something of the realms beyond it; they learn something of the heavenly bodies, of their varieties, of their motions, of their composition, and of their relations; they learn something of the geological history of the earth, and much of its geography; they acquire some kind of notion of the different nations and peoples now in existence, and of those of olden times; they become to some extent familiar with the great men who have lived and those who live, and learn to admire great deeds and great works, and to contemn such as are worthy of contempt; they get some insight into literature and science; in a greater or less degree, they acquire facility in the use of the instruments of culture—reading, writing, arithmetic, and the power of expressing themselves in their mother-tongue, and perhaps more important than all, they are taught, by constant association with companions of different characters, with boys of the same standing with themselves and with whom they are on equal terms, with older boys who assume authority over them, and with younger boys over whom they exercise control, to give and take, to recognise superiority, to strive to excel, to maintain their own rights, to yield with a good grace, to curb passion, to throw off selfishness. It is true that of much of the kinds of knowledge here enumerated they pick up only a smattering; but it must be recollected that this smattering means not a mere familiarity with small details, but some insight into the large generalisations which are the outcome of laborious investigations carried on for ages, and an acquaintance with which gives them large views of nature and of mankind, and places them intellectually on an infinitely higher level than the savage, however

skilful he may be in the pursuits to which his life has been devoted, and, in breadth of knowledge, far above many of those great men to whose collective labours we owe the magnificent edifice of scientific achievement which is the glorious heritage of the age in which we live.

I repeat, that what a boy learns usefully at school is not so much what he is taught expressly, as what he learns incidentally; that what sticks to him as education, as a general rule, is less his Greek and Latin, and his algebra, than the habits of work and continuous thought which the having to learn systematically creates and confirms, the casual knowledge he picks up, and the influence of the moral and physical training he undergoes.

There is no doubt that the system of educating boys could be largely improved. I am sure, looking to results, that, as a general rule, far too much time and labour are devoted to the study of the dry bones of Latin and Greek: that too little time is bestowed on mathematics; that the principles of science should receive much more attention than they do now; that literature, and more especially the literature of our own country, should have due recognition; and, what is of the highest importance, though it is now generally ignored, that boys should be taught systematically to read and speak like gentlemen, and to acquire, at least, some degree of facility in writing grammatical and coherent English. It ought not to be difficult, while requiring all boys to undergo systematic training in some two or three subjects, to find out what their special tastes and talents are, and to make the cultivation of them an additional and important part of their education.

Before proceeding to make a few remarks on the special education of medical students, I may, for a moment, advert to the preliminary education of boys who are intended to enter the medical profession. It is held by many persons that such boys should receive special training, and that, more particularly, science should enter in large proportion into their preliminary studies. I do not myself think that any special preliminary training is desirable; but I think that whatever training is best for average boys is also best for them. I admit the desirability of an acquaintance with modern languages, more especially French and German; but such knowledge is equally desirable in most other walks of life; and my admission that it is desirable for medical students amounts to no more than that these languages should form an integral part of the training of gentlemen. I am not, at present, expressing any opinion as to whether or not men who aim at the distinction of an university degree should be expected to give proof of higher and more thorough training than such as are content to become medical men without one.

2. *Medical Education.*—A fundamental distinction between the education of boys at school and the special education of medical students is, that the former aims merely at providing such a general training as shall fit boys, at the end of their school career, to start well equipped with general knowledge on the journey of life which is before them, and well-prepared to pursue, with zeal

and intelligence, whatever new lines of work the successful prosecution of their journey may require; while the latter represents one of these new lines of work; and a kind of work, moreover, which involves the study and investigation of certain definite subjects with which the student is bound to become reasonably well acquainted, if he is to be permitted to become a medical man. No amount of knowledge of Latin or Greek, of modern languages, or of the exact sciences, no literary ability or artistic skill, will make up for ignorance of anatomy and pathology in the person who professes to be a physician or surgeon, or of the uses of medicines, instruments and appliances in the treatment of diseases or accidents. Idleness and desultoriness may be forgiven in the schoolboy; but in the medical student are little less than a crime.

Yet, it must be admitted that large numbers of medical students give little serious thought to the work in which it is presumed they are engaged; and finally obtain the licence to practise their profession (if they obtain it at all) mainly by preparing themselves for their examinations with the aid of "grinders" or tutors. This would not be a matter of much importance, if the knowledge required of them were simply such as might be obtained (as a knowledge of mathematics, of classics, and of general literature may) by reading in their chamber. But most of what is taught in the medical schools can only be learnt by practical work and observation in the laboratory, in the dissecting room, in the dead-house, and at the bed-side of patients; and, though tutorial instruction and reading may prepare men successfully for examinations, they can give no real or useful knowledge to those who have systematically neglected their proper work. I confess that, looking at the matter from this point of view, it seems to me that many of our medical schools neglect their duty to their pupils, to their pupils' parents, and to the public. They are too apt to allow students to determine for themselves how they shall work, or whether they shall work at all; to sign their schedules after a casual and perfunctory attendance on their duties; and to judge of the quality of their work by their periodical examinations only. The duty of the medical schools is not only to provide the opportunities for acquiring knowledge, but to see that knowledge is acquired. And the best way of doing this is, not to allow the student to attend how and when it pleases him, but to compel him to carry out systematically certain prescribed duties which will thus afford him the opportunity of becoming fairly well, and practically, acquainted with those subjects which it is important he should know. It is true that the idle student will probably give little attention, and will remain idle; but, nevertheless, if compelled to attend lectures, to frequent the dissecting room and the dead-house, and to accompany the physicians and surgeons in their visits to the wards, it is impossible for even the most idle not to pick up a good deal of knowledge, and especially a good deal of practical information, in spite of himself. He can scarcely even avoid becoming occasionally interested in the work going on in his presence. At any rate he would acquire much more real and practically useful knowledge in

this way, than he could possibly obtain by only attending, at a comparatively late period, the tutorial classes, which form now so large —I scarcely like to say so valuable—a part of the mechanism of medical education.

There is only one other matter in relation to medical education which I shall consider. I think no one will deny that a thorough education in medicine and the collateral sciences is one of the most complete, valuable, and ennobling educations that a man can receive, and that such an education is not only a thing to be desired for itself, or for the power it gives one of coping with diseases, and ameliorating the ills of life, but furnishes the best starting point for a life to be devoted to the pursuit of any one of the natural sciences. I should be sorry, therefore, to see our medical schools fail in the ambition which has, for the most part, animated them hitherto, and has impelled them to furnish the means of a thorough training in all the sciences related to medicine, even in those like botany, whose bearing on medicine is neither very close nor very obvious ; and I should be sorry to find the more industrious and able pupils, and those who aim at obtaining university eminence, ceasing to devote much of their time to a profound study of one or more of these sciences. At the same time, when I look to the enormous development that has taken place, within my own memory, not only in these subjects, but in such as are more immediately concerned with the art of healing, namely, pathology and clinical medicine, surgery and midwifery, and consider how rapidly this development is still going on, I cannot but feel that the task set before those students who are anxious to excel generally has become exceedingly arduous, and that its arduousness is increasing, and that, for the great majority of students, and especially for those whose aim in life is not to advance knowledge, but simply to practice their profession, some limitation is absolutely necessary.

It seems to me that this limitation may best be made by requiring of such students only such a knowledge of physics, chemistry, physiology, and pathology, as will be serviceable to them in the study of disease, and in the practice of their profession, and not such a knowledge as would be needed to make them investigators, and by the omission of botany and comparative anatomy from their curriculum.

3. *Examinations.*—The third division of my discourse relates to examinations. I do not mean the examinations which teachers and professors conduct, from to time, in their several classes, with the object of finding out to what extent their pupils benefit by their instructions, and of keeping them up to their work, and, it may be, of awarding prizes to those of them who acquit themselves best ; but I mean the examinations of licensing bodies, or of universities, which aim at determining whether or not students have acquired sufficient knowledge of the subjects of the medical curriculum to allow of their admission into the roll of qualified medical practitioners. I must confess that the more I see of such examinations the less I am satisfied with them ; and that, though I regard

them as neeessary parts of the system, I regard them as necessary evils. The evils of these examinations are mainly: that the preparation for them takes students from their real and practical work, at times when such work is of the greatest importance to them, and sends them to the tutors or grinders instead; and that, however well eonducted they may be, they are neecssarily very inadequate, and often very unfair, tests of candidates' knowledge. That they distract students from their systematic work, and interfere seriously with the progress of their real education, is notorious; and I fear it must be acknowledged, that the plan of subdividing the examinations, as is the growing praetice, and of requiring examinations in eertain groups of subjeets to take place at certain intervals, and thus one examination to be the stepping-stone to another (although there may be important reasons in its favour), tends seriously to intensify the evil, and, at any rate, is certainly not an unmixed good. I reeollect that, many years ago, at a time when the teaching arrangements at St. Thomas's Hospital were under serious consideration by the hospital staff and lecturers, it was maintained, with great insistance, by one of the ablest and most thoughtful members of the school, that students should be allowed to do their work or not as they pleased, and if they chose to work, to work in whatever way seemed best to them; that how they aequired their knowledge was immaterial, so long as they did aequire it; that the true test of knowledge was examination; and that our duty towards students was fulfilled when we afforded them adequate means of learning, and instituted examinations by which the knewledge they had gained could be thoroughly gauged. These views had great influence, and determined our eourse of proeedure to no ineonsiderable extent. I think, indeed, this influenee still survives. And it must be allowed that there is a liberality of feeling, and a logical consistency, in the views thus expressed, which might well commend their acceptance to those who are not practically acquainted with teaching and examination; and, further, that if our examinations could be made in practice as thorough as in theory it might seem possible to make them, candidates might really be allowed full freedom in the pursuit of knowledge. But though, to a certain extent, I aecepted these views at the time, I soon began to discover that they were altogether unsound; and, as I have already shown, I have become, as years have passed and experience has accumulated, more and more distrustful of the value of examinations, and especially of the examinations conducted by the higher examining bodies. An examination cannot possibly be exhaustive. If it were, it would have to be extended over the whole range of details in which the pupil has been educated, and would have to be almost indefinitely prolonged. As a matter of fact, it is only possible for an examiner to dip here and there into the mine of a candidate's knowledge, and extract samples of the ore eontained in it, and judge, from these fragments, of the general value of its contents. This, if reasonably well and fairly done, is no doubt a sufficiently satisfactory test of a knowledge of the exact scienees, and even of such knowledge (that

of languages, to wit) as may be acquired by reading, and the mere exercise of memory. But, even if well and fairly done, it is a very insufficient test of the varied knowledge which medical students have to accumulate—of knowledge, most of which is acquired by the use of eyes and hands, much of which concerns subjects which are undergoing daily development, and about which there is necessarily much present difference of opinion among teachers, and which, moreover, is so extensive in its range that even the best of students must be very imperfectly acquainted with many parts of it. But, besides this, there are difficulties as respects the examiners, and difficulties as respects the candidates. It is very hard to be a good examiner. An examiner should have much knowledge of his subject, much experience, much tact and temper, and much penetration. He should know his subject well: for, if he knows it well, he is ready to understand the drift and meaning of confused and imperfect statements, to make allowances for inaccuracies, errors, and differences of opinion, and to adapt his questions and his methods to the special needs of each case; and, moreover, he would not need to prepare his questions carefully beforehand, as I know some examiners have to do. Experience is of great value. I am quite sure that, for the purposes of a pass-examination, those examiners are best who have been long engaged in examinations, and especially those are best who have, additionally, had long experience in teaching. It is very hard for an examiner to avoid losing temper and showing irritability at times. There are occasions, no doubt, when this is excusable; but, unfortunately, the temper is chiefly tried in those cases in which loss of temper does harm—as, for example, when the candidate is a bad stammerer, when he is nervous and confused, and consequently finds it difficult to collect his thoughts, or when he is one of those persons who are naturally incoherent and inarticulate. To the possession of tact, penetration, and judgment it is impossible to attach too high a value. It is, as I have elsewhere remarked, a very easy thing for an examiner to convict a candidate of ignorance; it is a much more difficult thing to find out what he knows. But it is this which constitutes the real duty of the examiner, and it is this which the combination of qualities I have enumerated best enables him to do. The difficulties on the side of the candidate have been referred to in what precedes. They are mainly nervousness, inability to express his meaning clearly, and inexactness and incompleteness of knowledge. If, then, the examinations cannot be made exhaustive, if the examiners themselves are unfitted (as, no doubt, many are) to perform efficiently the important duties which they undertake, and if the candidates fail from defects, other than want of knowledge, to acquit themselves satisfactorily, the results of the examinations cannot be trustworthy. But if they are not, and cannot be, trustworthy, it shows how absolutely necessary it is not to rely upon examination as the real and sufficient test of knowledge, but to insist that every medical student shall undergo the systematic training which is prescribed for him. And I may here add, what I think many

teachers will agree with me in, that, not unfrequently, the teachers of students are much better judges of who are fitted, by knowledge and experience, to practise their profession, than are the examiners, whose only tests of candidates' fitness are the answers they extract from them.

Admitting the need of examinations, as I am afraid I must, and yet looking upon them as evils, as I cannot help doing, how, I may be asked, should examinations be rendered as efficient for their purpose as possible, and how should their evils be counteracted? It is easier to put these questions than to answer them. It is especially difficult even to attempt to answer them without going into more detail than I am prepared to do. There are two or three considerations, however, to which I may advert. In the first place, I should be disposed to curtail rather than to increase the number of examinations students have to undergo. In the second place, I should recommend that the examiners be always chosen from experienced teachers, and that they be allowed and encouraged to retain office for some considerable length of time, indefinitely if they be found admirable examiners. In the third place, I should like to see some arrangement made by which the teachers of students should take part in their examination. It seemed to me, when I was visiting the examinations at some of the Scottish Universities, that there was much that was excellent in this plan, and that it tends to insure fairness of treatment to the candidates. In the fourth place, examinations should be made to cover a wide area, and not allowed to be restricted to merely a few scattered points. Such an examination, at first sight, might be taken to mean a more severe examination. As a matter of fact, however, it is the restricted examination which is the more severe one, because the pupil is afforded by it very little opportunity of retrieving his fortunes if he happen from any cause to make mistakes or be misunderstood; and if he does err, or is misunderstood, the examiner is necessarily led to form an exaggerated estimate of his faults and omissions. The more extensive examination is much fairer to the candidate; it gives him larger opportunities of displaying the knowledge he possesses; and the general effect on the examiner ought to be, unless the candidate be really bad, to render his judgment more favourable.

Most of what I have just said relates specially to pass-examinations, to examinations which are concerned not with candidates' relative merits, but only with the question whether they have made sufficient acquaintance with medicine to practice it. Competitive examinations, examinations for honours, stand on quite a different footing. These, as a rule, are entered into by men of higher ambition than their fellows, men who are anxious to obtain prizes and achieve academic eminence, and who are probably desirous also of making their early distinctions stepping-stones to further successes. That many who take a high place in such competitions never do anything more, and turn out eventually to occupy a lower intellectual level than many of those whom they have surpassed in their examinations, does not concern me

at this moment. The object of those who compete is to be successful in that for which they are competing; and the object of the examiners is to determine the order of merit shown by the candidates in their answers to the questions submitted to them. Here, in order to institute a fair comparison, every item on which comparison can be made has to be carefully considered and weighed; and it becomes just as important, and just as fair to candidates, to scrutinise their errors and omissions as it is to give credit for the actual knowledge they display. Hence, such an examination seems to me quite different in principle from a pass-examination; it does not demand the same qualities in the examiners; it requires painstaking and laborious weighing of evidence; and, I am inclined to think, is best conducted by young examiners.

To repeat the conclusions which I have endeavoured to express with respect to pass-examinations and examinations for honours respectively: it seems to me that, in a pass-examination, it is the duty of the examiner to find out what a man knows, rather than to convict him of ignorance; and that this is best done by men of large experience in teaching and examining, who can make due allowance for the errors which are or seem to be committed, and who, by tact, habit, and temper, are able to drag out the knowledge which is in candidates, but which these fail to yield spontaneously; while, in honour examinations, nearly all that has to be done is to institute an honest and laborious comparison between the actual work of the competitors; and this can be done at least as well by young examiners, who always tend to be logical and strict, as by others, and probably better than by others.

4. *The Conjoined Colleges and Medical Degrees.*—I come, lastly, to the consideration of the conditions under which degrees should be given by the united Colleges, supposing they acquire the requisite powers. Much diversity of opinion appears to prevail on this question, not only among the members of the profession who have taken it up, but among members of the governing bodies of the Colleges of Physicians and Surgeons. Some are anxious that the title of doctor, which almost from time immemorial has been bestowed upon medical men by the general public, should become legalised, and that every medical man should thus become a doctor in his own right. Others desire that the title of doctor should remain (as it is now supposed to be) a mark of some superiority of education; and that, though the opportunity of obtaining it should be afforded to everyone who wishes to work for it and deserves it, it should only be awarded to those who have passed through a certain specified curriculum, and submitted themselves to examinations of greater stringency that are required of those who only seek a licence to practise. It will be recollected, I dare say, that, at a recent meeting of the Branch upon the subject of degrees, a very distinguished member of our body supported, or at any rate did not oppose, the motion which was carried in favour of the acquisition of the power of conferring degrees by the two Colleges, and expressed himself as not being unfavourable to the giving of a

medical degree to all practitioners of medicine; but, at the same time stated that, if the title became thus general, he should prefer to drop it himself, and enjoy the distinction of being a simple "Mr." Some thought he was making fun of the objects of the meeting, and perhaps he was. At any rate, what he said showed that he thought that, if the title of doctor became universal, it would lose all value. I agree with him. And I think it would be a childish thing, and utterly below the dignity of the two bodies which are at the head of the profession in this country, to stir a finger to obtain power to give a degree on such terms, or even to accept it if it were offered. Moreover, if the prefix "doctor" to one's name is all that is required, why should not the profession at once adopt it? The title would not be registerable; but there is no law, so far as I I know, against any legally qualified practitioner assuming it. And the right to use it would thus be acquired exactly as, I believe, the title "Reverend" has been acquired in the course of years by members of the clerical profession. My own view is, and always has been since I have formed any opinion at all upon the subject, that a degree in medicine should be regarded as an honourable distinction; that, though it should be open for all to obtain it, it should only be given to those who have earned it by good work; and that its possession should imply the possession of a wider range of knowledge than is required for the mere practice of the profession as a livelihood. I should, therefore, myself oppose its being given to all who pass the present conjoint examinations, in virtue of these examinations only. I know that these examinations are very good; and that although, in a sense, they are minimum examinations, they are as regards everything save, perhaps, the preliminary requirements in classics, mathematics, &c., fully equal to the examinations for the passing of which the double degree of M.B. and C.M. are given by the Scottish universities, if they be not superior to them. I should be disposed to suggest that, for all who aim at obtaining the conjoint degree, a more stringent preliminary or matriculation examination should be given, and given by the Colleges themselves, than is required of those who only aim at obtaining a licence; and, perhaps, even that some examination, corresponding to the preliminary scientific of the University of London, should also be instituted; and, further, that the opportunity should be taken of requiring candidates to undergo a somewhat longer training in medicine and surgery, say a year longer, than is demanded of the licentiates.

As regards the matriculation examination, I should not desire that the example of the University of London be followed. I have elsewhere given reasons for objecting to the wide and vexatious range of subjects embraced in their matriculation. What I should like to see is a fairly strict examination in some three or four subjects, including Latin and Mathematics, to be required of all candidates, and others to be chosen within specified limits by each candidate. Such an examination might be quite as high in its requirements as that of the University of London; but, while requiring of all candidates a respectable knowledge of certain

subjects which are always taught at high-class schools, it would readily accommodate itself to the different kinds of training which are now carried out in different institutions. And, again, if an examination to take the place of the preliminary scientific should be required of students previous to their entry on their strictly professional duties, it should be an examination in botany, chemistry, and physics. It is desirable, I think, that a student should learn his chemistry before he begins his real medical training; and, although neither botany nor physics are essential for the successful pursuit of medicine, they comprise sciences with which it is desirable that the well-educated physician should be more or less familiar, and a knowledge of which helps to give a scientific tone to the mind. I may add that I should be disposed so to frame the preliminary examination for the licentiates that it should be a part of the fuller examination for the graduates, and might, if need were in any particular case, be so supplemented, at a later period of the student's career, as to become with the supplement equivalent to the latter, and so available for those students who, having begun their career in the lower grade, might wish to rise out of it.

Some, who have been interesting themselves in the question under consideration, have maintained that, while the entrance examination for future M.D.'s should be more extensive and strict than that for mere licentiates, the professional examinations should be the same in both cases, only that the level of knowledge to secure a pass should be generally raised. To this suggestion I strongly demur. The present examinations err, if they err at all, on the side of strictness, and there is always a tendency among shifting examiners to screw up their requirements. This tendency, instead of being encouraged, should be opposed. I am not quite prepared to suggest how these examinations should differ from those for the licences; but I am disposed to think that a more profound knowledge of physiology and of pathology should be required of graduates than of others, and, as I have already suggested, that the opportunity should be taken of requiring candidates to devote a longer period to their studies, and especially to the study of medicine and surgery, and in special practical departments.

An important question is, "What are the degrees the associated Colleges should give?" The universities confer the bachelorship and doctorate in medicine, and the mastership in surgery, and, in some cases, the bachelorship in surgery. I suppose, *primâ facie*, most persons would think that these same degrees should be conferred by the Colleges. I think not. I have no sympathy with the tendency which there seems to be to give university distinctions in respect of mere artificial subdivisions of great subjects. The titles of M.B. and M.D. are of high antiquity; they are universally recognised as the academical decoration of men who have been highly educated in medicine, and they imply the possession of knowledge, if not of skill, in all branches of medicine, including surgery and midwifery. What need is there for a degree in surgery? The doctorate in medicine includes it. Moreover, if the Colleges give subordinate degrees for mere sections of medicine,

why should they not confer a degree of Doctor of Dental Surgery, as the Americans do, or, to descend from the top to the bottom of the alimentary canal, even Doctor of Bum Surgery? I do not suppose that our colleges, or our universities either, will ever be tempted to dignify with special degrees skill in fractional parts of our profession such as these. Yet the establishment of the mastership in surgery marks a tendency in this direction. This degree is of modern date; I do not know, for I have not inquired, what was the occasion of its creation by the Universities of Oxford and Cambridge, and by the University of London. But the history of its adoption by the Scotch universities, and the grounds upon which it is conferred by them, are instructive. It was instituted after the passing of the Medical Act, which bestowed upon universities the power, which they did not previously possess, of giving licences to practise; and it was instituted not because such a degree was called for by the profession, or even by the surgical branch of it, but because there was a doubt on the part of the university authorities whether the title of M.B. or M.D. carried with it the right to practise surgery as well as medicine. And that in these universities it neither implies special education in surgery, nor knowledge of it, nor confers any real distinction, is shown by the fact that there is no special examination in surgery in respect of it, and that it is bestowed as a matter of course on all who obtain the bachelorship of medicine. It is, in fact, a mere licence masquerading in the dress of a degree. There is no reason why our colleges should perpetuate a sham degree like that; and there is, it seems to me, a very important reason why they should not. Our colleges, as we hope, will confer a degree in medicine. But it must never be forgotten by us that these two colleges stand at the very head of medicine and surgery in this country, and that the highest qualifications which they give at the present time occupy a far higher position in the estimation of the medical profession than any university degree. Scarcely a Fellow or Member of the Royal College of Physicians, I should think, esteems his university degree as highly as he does his position in his college. No Fellow of the Royal College of Surgeons can possibly attach anything like the same value to a mastership in surgery that he does to his fellowship. The Colleges, therefore, have no reason whatever to give any so-called university degree to stamp either the highest special knowledge in medicine (using the word medicine in its restricted sense), or the highest special knowledge in surgery. They do that already with titles which stand higher than any university degree. It would be absurd of them to create new titles to compete with their older ones, and to compete with them at a disadvantage.

To summarise my views on the important question I have just discussed: I should wish the Colleges to continue their joint examinations for the licence of the one body and the membership of the other, these qualifications representing their minimum requirement for obtaining a licence to practise; and to retain and exercise their individual powers of conferring by means of the

membership and fellowship of the one College, and of the fellowship of the other, the highest distinguishing marks of eminence in medicine and surgery respectively. I should wish them, in their capacity of a medical university, to confer only the degrees of Bachelor and Doctor of Medicine, and that these degrees should imply that those who obtain them have given proof of a better preliminary training than is required of candidates for the licence, of a wider and more profound acquaintance with collateral sciences, and of a more extended professional education; and that they should be conferred in respect, not of special excellence in either medicine or surgery, but of a broad and well-balanced training in all branches of medicine. The M.D. degree I should like to be given a year or two later than the M.B. degree; and given, not as by the London University, for what is practically only a repetition of the M.B. examination, but as by the other universities, in respect of a thesis, or as an alternative, in respect of a special and exhaustive examination in some branch of science or literature to be selected beforehand by the candidate.

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